

## **CLAIMS**

[1] A customer management system comprising a home appliance device connectable to a network and a management apparatus operable to manage information concerning a customer, said home appliance device and said management apparatus being connected to each other via the network,

5 wherein said home appliance device includes:

a reading unit operable to read the customer information

10 concerning a customer from a recording medium;

a manufacturing number recording unit operable to hold a manufacturing number provided at a time of manufacturing of said home appliance device;

15 a transmission record preparing unit operable to prepare a transmission record that describes at least one of function information assigned on the basis of a usage form of said home appliance device, the customer information, and the manufacturing number; and

20 a transmitting unit operable to transmit the transmission record to said management apparatus, and

wherein said management apparatus includes:

25 a receiving unit operable to receive the transmission record;

a transmission record reading unit operable to read information described in the transmission record; and

an analysis unit operable to analyze the read information.

[2] The customer management system according to claim 1, wherein said analysis unit is operable to analyze a usage status of the function information used in each said home appliance device.

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[3] The customer management system according to claim 1,

wherein the recording medium is an IC card.

[4] The customer management system according to claim 1,  
wherein the manufacturing number recorded in said  
5 manufacturing number recording unit is a global unique number.

[5] The customer management system according to claim 1,  
wherein said management apparatus further includes:  
a customer database operable to hold the customer  
10 information recorded in the transmission record having been  
received;  
a merchandise database operable to hold the merchandise  
information recorded in the transmission record having been  
received;  
15 an analysis information database operable to hold an analysis  
result in said analysis unit; and  
a record updating unit operable to update the record of the  
information recorded in said customer database, said merchandise  
database, and said analysis information database, after the  
20 receiving of the transmission record.

[6] The customer management system according to claim 5,  
wherein said management apparatus further includes  
a determination unit operable to determine whether the  
25 customer information included in the transmission record is a new  
one, and  
said record updating unit is operable to add and register the  
customer information into said customer database in the case of  
being determined as a new one by said determination unit.

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[7] The customer management system according to claim 1,  
wherein said home appliance device further includes

a first-time determination unit operable to determine whether the customer information has been read by said reading unit, at a time of first-time usage,

5       said transmission record preparing unit is further operable to prepare a first-time transmission record that includes at least the customer information and the manufacturing number, when the read of the customer information by said reading unit is determined as being the first time by said first-time determination unit, and

10      said transmitting unit is operable to transmit the first-time transmission record to said management apparatus.

[8]     The customer management system according to claim 7, wherein said home appliance device further includes a device control unit operable to bring said home appliance device into a usage permitted state after the first-time transmission record is transmitted by said transmitting unit.

[9]     A home appliance device connected via a network to a management apparatus provided on a manufacturer side and 20 operable to manage information concerning a customer, said device comprising:

      a reading unit operable to read the customer information from a recording medium;

25      a manufacturing number recording unit operable to hold a manufacturing number provided at a time of manufacturing of said home appliance device;

      a transmission record preparing unit operable to prepare a transmission record that describes at least one of function information assigned on the basis of a usage form of said home 30 appliance device, the customer information, and the manufacturing number; and

      a transmitting unit operable to transmit the transmission

record to the management apparatus.

[10] The home appliance device according to claim 9,  
wherein said home appliance device further comprises  
5 a first-time determination unit operable to determine whether  
the customer information has been read by said reading unit, at a  
time of first-time usage,  
said transmission record preparing unit is further operable to  
prepare a first-time transmission record that includes at least the  
10 customer information and the manufacturing number, when the read  
of the customer information by said reading unit is determined as  
being the first time by said first-time determination unit, and  
said transmitting unit is operable to transmit the first-time  
transmission record to the management apparatus.

15 [11] The home appliance device according to claim 10,  
wherein said home appliance device further comprises  
a device control unit operable to bring said home appliance  
device into a usage permitted state after the first-time transmission  
20 record is transmitted by said transmitting unit.

[12] A management apparatus that is connected to a home  
appliance device connectable to a network and that is provided on a  
manufacturer side and operable to manage information concerning a  
25 customer, said apparatus comprising:  
a receiving unit operable to receive a transmission record  
transmitted from the home appliance device;  
a transmission record reading unit operable to read  
information described in the transmission record; and  
30 an analysis unit operable to analyze a usage status of function  
information used in each home appliance device, on the basis of the  
information read by said transmission record reading unit.

[13] The management apparatus according to claim 12,  
wherein said management apparatus further comprises  
a first-time determination unit operable to determine whether  
5 in the transmission record, a customer is a new one, or the  
combination of a customer and the home appliance device is a new  
one, or the home appliance device is a new one.

[14] A program used in a home appliance device connected via a  
10 network to a management apparatus provided on a manufacturer  
side and operable to manage information concerning a customer,  
said program causing a computer to execute:

a reading step of reading the customer information  
concerning a customer from a recording medium;

15 a manufacturing number recording step of holding a  
manufacturing number provided at a time of manufacturing of the  
home appliance device;

20 a transmission record preparing step of preparing a  
transmission record that describes at least one of function  
information assigned on the basis of a usage form of the home  
appliance device, the customer information, and the manufacturing  
number; and

a transmission step of transmitting the transmission record to  
the management apparatus.

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[15] The program according to claim 14,  
wherein said program further comprises  
a first-time determination step of determining whether the  
customer information has been read at said reading step, at a time  
30 of first-time usage, and

wherein at said transmission record preparing step, a  
first-time transmission record that includes at least the customer

information and the manufacturing number is prepared when the read of the customer information at said reading step is determined as being the first time at said first-time determination step, and  
5 at said transmission step, the first-time transmission record is transmitted to the management apparatus.

[16] The program according to claim 15,  
wherein said program further comprises  
a device control step of bringing the home appliance device  
10 into a usage permitted state after the first-time transmission record is transmitted at said transmitting step.

[17] A program used in a management apparatus that is connected to a home appliance device connectable to a network and that is  
15 provided on a manufacturer side and operable to manage customer information, said program causing a computer to execute:  
a receiving step of receiving a transmission record transmitted from the home appliance device;  
a transmission record reading step of reading information  
20 described in the transmission record; and  
an analysis step of analyzing a usage status of function information used in each home appliance device, on the basis of the information read at said transmission record reading step.

25 [18] A customer management method used in a home appliance device connected via a network to a management apparatus provided on a manufacturer side and operable to manage information concerning a customer, said method comprising:  
a reading step of reading the customer information  
30 concerning a customer from a recording medium;  
a manufacturing number recording step of holding a manufacturing number provided at a time of manufacturing of the

home appliance device;

a transmission record preparing step of preparing a transmission record that describes at least one of function information assigned on the basis of a usage form of the home  
5 appliance device, the customer information, and the manufacturing number; and

a transmission step of transmitting the transmission record to the management apparatus.

10 [19] The customer management method according to claim 18,  
wherein said customer management method further comprises

15 a first-time determination step of determining whether the customer information has been read at said reading step, at a time of first-time usage, and

wherein at said transmission record preparing step, a first-time transmission record that includes at least the customer information and the manufacturing number is prepared when the read of the customer information at said reading step is determined  
20 as being the first time at said first-time determination step, and  
at said transmission step, the first-time transmission record is transmitted to the management apparatus.

[20] The customer management method according to claim 19,  
25 wherein said customer management method further comprises

a device control step of bringing the home appliance device into a usage permitted state after the first-time transmission record is transmitted at said transmitting step.

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[21] A customer management method used in a management apparatus that is connected to a home appliance device connectable

to a network and that is provided on a manufacturer side and operable to manage customer information, said method comprising:

a receiving step of receiving a transmission record transmitted from the home appliance device;

- 5 a transmission record reading step of reading information described in the transmission record; and

an analysis step of analyzing a usage status of function information used in each home appliance device, on the basis of the information read at said transmission record reading step.